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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,790	02/15/2007	Michele Lapelosa	NIT004WUS/AG/bp	5876
21254 7590 06/08/2011 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			EXAMINER SMITH, NICHOLAS A	
			ART UNIT 1723	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,790	Applicant(s) LAPELOSA ET AL.	
	Examiner NICHOLAS A. SMITH	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,8-13 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8-13 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP60-32367 (JP'367) as submitted on Applicant's Information Disclosure Statement on 20 October 2009 in view of Heller (US 4085867 A) and in further view of Polan (US 6158620 A).

3. In regards to claim(s) 1, JP'367 discloses a torch (in Fig. 7) for the surface treatment of metals, comprising a peak-paddle (5) connected to a unipolar current supply (1) with the other pole being connected to the metal surface being treated (2), with electrolytic fluid to be delivered from a tank (electrolyte reservoir 6) into a channel (4) inside the torch, wherein the torch comprises a device for controlling delivery of the electrolytic solution (18, trigger, 15, spring and 13, piston) a manual pump arranged in any part of the supply ducts, the pump comprising a first non-return valve (16) and a second non-return valve (14), arranged upstream and downstream, respectively of the pump body (12), i.e. the shell.

4. However, JP'367 does not explicitly disclose the shell having a flexible zone.

5. Heller discloses an apparatus for manual deliver of fluids by pressurizing (same field of endeavor as JP'367) a shell that is located between two check valves (col. 2,

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lines 18-32). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 with Heller's flexible zoned shell because such a flexible shell can avoid the problems associated commonly with piston pumps (Heller, col. 1, lines 28-34).

6. In further regards to claim(s) 1, JP'367 in view of Heller does not explicitly disclose the shell comprising handgrip shaped with rigidifying zones and zones with concentrated flexibility.

7. Polan discloses an apparatus for dispensing fluid (same field of endeavor as Heller) that include handgrip actuated (thus shaped; col. 1, lines 16-29) and with rigidifying zones and zones with concentrated flexibility (abstract). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller with Polan's shape because such a shape allows for a controlled collapse and rapid refill of the shell (Polan, abstract).

8. In further regards to claim(s) 1, the combination of JP'367 in view of Heller and in further view of Polan would include the shell shaped to have a chamber at the second non-return valve and at the flexible zone as taught by Heller in Fig. 3.

9. In further regards to claim(s) 1, the combination of JP'367 in view of Heller and in further view of Polan would include the flexible zoned shell pump within the metallic body of the torch thus having preferential sealing zones (shell attached annularly within the torch) between an inside of the shell and the metallic body through annular seats on the metallic body and corresponding annular inner edges in the shell, since the shell would be inline with the torch just as the pump body (with piston/trigger) was inline with the torch in JP'367.

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10. In regards to claim(s) 2, JP'367 discloses a torch (in Fig. 7) for the surface treatment of metals, comprising a peak-paddle (5) connected to a unipolar current supply (1) with the other pole being connected to the metal surface being treated (2), with electrolytic fluid to be delivered from a tank (electrolyte reservoir 6) into a channel (4) inside the torch, wherein the torch comprises a device for controlling delivery of the electrolytic solution (18, trigger, 15, spring and 13, piston) a manual pump arranged in any part of the supply ducts, the pump comprising a first non-return valve (16) and a second non-return valve (14), arranged upstream and downstream, respectively of the pump body (12), i.e. the shell.

11. However, JP'367 does not explicitly disclose the shell having a flexible zone.

12. Heller discloses an apparatus for manual deliver of fluids by pressurizing (same field of endeavor as JP'367) a shell that is located between two check valves (col. 2, lines 18-32). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 with Heller's flexible zoned shell because such a flexible shell can avoid the problems associated commonly with piston pumps (Heller, col. 1, lines 28-34).

13. In further regards to claim(s) 2, JP'367 in view of Heller does not explicitly disclose the shell comprising handgrip shaped with rigidifying zones and zones with concentrated flexibility.

14. Polan discloses an apparatus for dispensing fluid (same field of endeavor as Heller) that include handgrip actuated (thus shaped; col. 1, lines 16-29) and with rigidifying zones and zones with concentrated flexibility (abstract). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of

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Heller with Polan's shape because such a shape allows for a controlled collapse and rapid refill of the shell (Polan, abstract).

15. In further regards to claim(s) 2, the combination of JP'367 in view of Heller and in further view of Polan would include the shell shaped to have a chamber at the second non-return valve and at the flexible zone as taught by Heller in Fig. 3.

16. In further regards to claim(s) 2, JP'367 in view of Heller in further view of Polan discloses include the flexible zoned shell pump within the metallic body of the torch thus having preferential sealing zones (shell attached annularly within the torch) between an inside of the shell and the metallic body through annular seats on the metallic body and corresponding annular inner edges in the shell, since the shell would be inline with the torch just as the pump body (with piston/trigger) was inline with the torch in JP'367; annular grooves are on the outside of the shell as disclosed in Heller, Fig. 3. The limitation "for an application of a belt and locking rings of the shell" is an intended use of the apparatus and therefore does not patentably distinguish from the prior art. See MPEP 2114.

17. In regards to claim(s) 11, JP'367 discloses the tank (6) having a rigid casing; the modification of Heller's shell is a mobile partition with a surface in contact with atmospheric pressure. . In regards to the limitation "for the re-entry of air," such a limitation is an intended use of the apparatus and does not patentably distinguish from the prior art. See MPEP 2114.

18. In regards to claim(s) 12, JP'367 discloses the tank (6) having a rigid casing; the modification of Heller's shell is a mobile partition in contact with a pressurized chamber

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(while actuated); the chamber pushes back upon said partition during the delivery of electrolytic solution.

19. In regards to claim(s) 13, JP'367 discloses the tank (6) having a rigid casing; the modification of Heller's shell is a mobile partition. The partition would be equipped with a union hole for at least one non-return valve. However, JP'367 in view of Heller does not explicitly disclose a return shaft of the partition.

20. Polan discloses an apparatus for dispensing fluid (same field of endeavor as Heller) that include handgrip actuated (thus shaped; col. 1, lines 16-29) and with rigidifying zones and zones with concentrated flexibility (abstract). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller with Polan's shape because such a shape allows for a controlled collapse and rapid refill of the shell (Polan, abstract). The rigidifying zones are return shafts of the partition, meeting the claimed limitation. The return shafts would allow for the reloading of the tank with the suction of the electrolytic solution.

21. Claims 8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'367 in view of Heller in view of Polan and in further view of Hoffman et al. (US 20020157964 A1)

22. In regards to claim(s) 8, JP'367 discloses an electrolyte supplying aperture, but does not explicitly disclose a tank removably connected to the torch.

23. Hoffman et al. discloses a method of clean conductive bodies using an electrolytic solution (abstract; same field of endeavor as JP'367). Hoffman et al. discloses a tank attached to a pump supplying electrolyte (para [0066]). It would have

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been obvious to one of ordinary skill in the art to modify the torch of JP'367 in view of Heller in view of Polan with Hoffman et al.'s tank because Hoffman et al. teaches such a tank effect for holding electrolyte (Hoffman et al., para [0066]). A tank that is attached to a system is inherently removably connected.

24. In regards to claim(s) 21, JP'367 discloses an electrolyte supplying aperture, but does not explicitly disclose a tank removably connected to the torch.

25. Hoffman et al. discloses a method of clean conductive bodies using an electrolytic solution (abstract; same field of endeavor as JP'367). Hoffman et al. discloses a tank attached to a pump supplying electrolyte (para [0066]). It would have been obvious to one of ordinary skill in the art to modify the torch of JP'367 in view of Heller in view of Polan with Hoffman et al.'s tank because Hoffman et al. teaches such a tank effect for holding electrolyte (Hoffman et al., para [0066]). A tank that is attached to a system is inherently removably connected.

26. Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'367 in view of Heller, in further view of Polan and Hoffman et al., and in further view of Akio (US 3150012).

27. In regards to claim(s) 9, JP'367 discloses an electrolyte supplying aperture, but does not explicitly disclose a tank removably connected to the torch.

28. Hoffman et al. discloses a method of clean conductive bodies using an electrolytic solution (abstract; same field of endeavor as JP'367). Hoffman et al. discloses a tank attached to a pump supplying electrolyte (para [0066]). It would have been obvious to one of ordinary skill in the art to modify the torch of JP'367 in view of

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Heller in view of Polan with Hoffman et al.'s tank because Hoffman et al. teaches such a tank effect for holding electrolyte (Hoffman et al., para [0066]). A tank that is attached to a system is inherently removably connected.

29. In further regards to claim(s) 9, JP'367 in view of Heller and in further view of Hoffman et al. does not explicitly disclose a tank comprising a capillary.

30. Akio discloses a method of maintain and providing electrolyte (in the same field of endeavor as JP'367). Akio discloses a tank comprising a capillary (col. 2, lines 6-18). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller in view of Polan in further view of Hoffman et al. with Akio's capillary because Akio teaches that the capillary assists in maintaining the electrolyte hydration (Akio, col. 6-18). In regards to the limitation "for the re-entrance of air after the suction of the electrolytic solution," such a limitation is an intended use of the apparatus and does not patentably distinguish from the prior art. See MPEP 2114.

31. In regards to claim(s) 22, JP'367 discloses an electrolyte supplying aperture, but does not explicitly disclose a tank removably connected to the torch.

32. Hoffman et al. discloses a method of clean conductive bodies using an electrolytic solution (abstract; same field of endeavor as JP'367). Hoffman et al. discloses a tank attached to a pump supplying electrolyte (para [0066]). It would have been obvious to one of ordinary skill in the art to modify the torch of JP'367 in view of Heller in view of Polan with Hoffman et al.'s tank because Hoffman et al. teaches such a tank effect for holding electrolyte (Hoffman et al., para [0066]). A tank that is attached to a system is inherently removably connected.

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33. In further regards to claim(s) 22, JP'367 in view of Heller and in further view of Hoffman et al. does not explicitly disclose a tank comprising a capillary.

34. Akio discloses a method of maintain and providing electrolyte (in the same field of endeavor as JP'367). Akio discloses a tank comprising a capillary (col. 2, lines 6-18). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller in view of Polan in further view of Hoffman et al. with Akio's capillary because Akio teaches that the capillary assists in maintaining the electrolyte hydration (Akio, col. 6-18). In regards to the limitation "for the re-entrance of air after the suction of the electrolytic solution," such a limitation is an intended use of the apparatus and does not patentably distinguish from the prior art. See MPEP 2114.

35. Claims 10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'367 in view of Heller, in further view of Polan, in further view of Hoffman et al., in further view of Akio and in further view of Ophardt (US 6875539 B2)

36. In regards to claim(s) 10, JP'367 in view of Heller, in view of Polan, in further view of Hoffman et al., in further view of Akio does not explicitly disclose the tank is the type of flexible casing.

37. Ophardt discloses a method of fluid dispensing an electrolytic fluid (abstract), in the same field of endeavor as JP'367. Ophardt discloses a tank comprising flexing casing (col. 8, lines 12-39). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller, in view of Polan, in further view of Hoffman et al., in further view of Akio with Ophardt's flexing casing because Ophardt discloses such a tank is capable of holding electrolyte and would be expected to hold

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electrolyte in a predictable manner since Hoffman et al. discloses that a tank also holds electrolyte. In regards to the limitation "for the re-entry of air," such a limitation is an intended use of the apparatus and does not patentably distinguish from the prior art. See MPEP 2114.

38. In regards to claim(s) 23, JP'367 in view of Heller, in view of Polan, in further view of Hoffman et al., in further view of Akio does not explicitly disclose the tank is the type of flexible casing.

39. Ophardt discloses a method of fluid dispensing an electrolytic fluid (abstract), in the same field of endeavor as JP'367. Ophardt discloses a tank comprising flexing casing (col. 8, lines 12-39). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller, in view of Polan, in further view of Hoffman et al., in further view of Akio with Ophardt's flexing casing because Ophardt discloses such a tank is capable of holding electrolyte and would be expected to hold electrolyte in a predictable manner since Hoffman et al. discloses that a tank also holds electrolyte. In regards to the limitation "for the re-entry of air," such a limitation is an intended use of the apparatus and does not patentably distinguish from the prior art. See MPEP 2114.

Response to Arguments

40. Applicant's arguments filed 21 March 2011 have been fully considered but they are not persuasive. In regards to Applicant's argument that the references do not teach a metallic body and an external shell surrounding the body, JP'367 teaches the metal body (channel surrounding 4, and jutting into chamber 6 in Fig. 7) that is attached to the

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external shell (the combination of pump body **12** and chamber **6**; Fig. 7); the substitution of Heller's flexible shell is considered in the prior art, as stated above, to avoid the common problems of piston pumps. In regards to Applicant's argument that Heller and Polan do not suggest position a metallic body into the tank, all prior art must be considered; JP'367 teaches the metal body (channel surrounding **4**, and jutting into chamber **6** in Fig. 7) that is attached to the external shell/tank (the combination of pump body **12** and chamber **6**; Fig. 7). In regards to Applicant's argument that the art does not teach belt or locking rings, the limitation "for an application of a belt and locking rings of the shell" is an intended use of the apparatus and therefore does not patentably distinguish from the prior art. See MPEP 2114. Polan teaches the rigidifying zones as Polan discloses an apparatus for dispensing fluid that include handgrip actuated (thus shaped; col. 1, lines 16-29) and with rigidifying zones and zones with concentrated flexibility (abstract). In regards to Applicant's argument that Heller's container only works in the vertical direction only, the fact that Applicant's container can work in any direction is not a claimed feature and is therefore distinguished from the prior art. In regards to Applicant's argument that none of the prior art teach or suggest positioning a metallic body in the shell and clamping it to the first part on a specific section to define a flexible zone to pump electrolyte, the prior art does teach the structure as stated above; terms such as "positioning," "clamping" and "to pump" are method limitations and do not structurally distinguish an apparatus claim from the prior art.

Conclusion

41. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

42. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

43. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS A. SMITH whose telephone number is (571)272-8760. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

44. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on (571)-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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45. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NAS

/Alexa D. Neckel/
Supervisory Patent Examiner, Art Unit 1723